REMARKS/ARGUMENTS

The Office Action of July 2, 2004 rejected claims 20-21 under 35 U.S.C. § 102(b) as being anticipated by Bloomfield U.S. Patent No. 3,982,962. However, Applicants maintain that the claimed invention is not identically disclosed in Bloomfield '962. Independent claim 20 recites "A fuel cell system comprising: an organic cooling fluid, a pump for pumping the cooling fluid in a liquid state to an elevated pressure, the pump being connected to deliver the fluid to a heat exchanger in a fuel cell...." Bloomfield '962 simply does not disclose a fuel cell system using an organic cooling fluid circulated through the heat exchanger in a fuel cell.

The Examiner has taken the position that a hydrocarbon fuel becomes mixed with water or steam in a Rankine cycle loop of Bloomfield '962. However, again Applicants maintain that the Examiner is reading the references in error. The only place that Bloomfield teaches that steam and a hydrocarbon fuel should be mixed is in line 66, which leads to the steam reformer 18. The Examiner's attention is respectfully directed to Bloomfield '962, column 5, lines 39-46, which state: "The superheated steam leaves the heat exchanger 72 and is delivered to a valve 96 via a conduit 98. The valve 96 permits the amount of steam necessary for the steam reforming reactor 18 to pass into the conduit 66 whereupon it mixes with unprocessed fuel at 64 as hereinabove explained. The remainder of the superheated steam is delivered into the turbine 40 via conduit 100." Again, Applicants maintain that only superheated steam is delivered to the turbine 40 and then back into the Rankine cycle loop. The Examiner has failed to address the Applicants' position and has not denied Applicants' reading of the reference.

The Examiners' attention is also again directed to Bloomfield '962, column 5, lines 28-32, which states in part, "water is delivered into pump 90 via conduit 92 and is delivered into thermal exchange relationship with the stack via a conduit 94...." As such, Bloomfield '962 teaches that only water is delivered back to the stack 12. Therefore, Bloomfield '962 does not identically disclose Applicants' claimed invention which requires the organic cooling fluid to be pumped to the fuel cell stack. In fact, Bloomfield '962 teaches away from Applicants' claimed invention by teaching that water should be pumped from pump 90 via line 94 into a heat exchanger of a fuel cell. Any other interpretation of the reference is factual error on the part of the Examiner. No prima facie case of anticipation has been established.

Again, Applicants direct the Examiners' attention to Bloomfield '962, column 6, lines 9-17 and Figure 2. Even where Bloomfield '962 suggests using a Rankine cycle with a fluid other than water, such as a refrigerant, the Rankine cycle loop does not include the fuel cell. As shown in Figure 2 of the Bloomfield '962 reference, a separate Rankine loop is provided that does not include a fuel cell. A separate steam loop is provided where water is pumped into a heat exchanger in the fuel cell. As such, Bloomfield actually teaches away from Applicants' claimed invention which requires the organic cooling fluid to be pumped into the fuel cell as recited in independent claim 20. Applicants' claimed invention is not identically disclosed as required under 35 U.S.C. § 102(b).

The Examiners' attention is respectfully directed to Bloomfield '962, column 6, line 9-17

which discloses "An alternative embodiment of the present invention as shown in FIG. 2 Components which are the same as those in FIG. 1 have been given the same reference numerals. The major difference between this embodiment and the embodiment of FIG. 1 are that the working fluid for the Rankine cycle is not necessarily water, and the stack 12 is provided with a separate cooling loop which also serves to generate steam for the steam reforming reactor 18." Bloomfield teaches away from Applicants' invention by disclosing a Rankine cycle which is not connected to a fuel cell stack, and by teaching that the fuel cell stack should have a separate cooling loop. If the Rankine cycle actually was connected to the fuel cell stack and an organic cooling fluid utilized, such would not meet the operational purpose of Bloomfield '962 to provide "a separate cooling loop which also serves to generate steam for the steam reforming reactor 18." Applicants' claimed invention simply isn't identically disclosed in Bloomfield '962.

The Examiners' attention is also respectfully directed to the Office Action of July 2, 2004, page 9 wherein the Examiner states "Thus, it is noted that the prior art clearly envisioned and envisaged the use of an organic cooling medium in fuel cell applications regardless of whether or not the Rankine cycle loop does include the fuel cell. In that, and as further noted that a reference is good for what it teaches, discloses, or at least, what the teachings, in general, of the references would have suggested to those skilled in the art." The Examiners remarks were addressing arguments made by Applicants to a 35 USC 102(b) rejection (the only rejection in the case in the final office action of the parent case). The Examiners' position is legal error because it is not consistent with the identically disclosed requirement for anticipation under 35 U.S.C. § 102. Anticipation under 35 USC 102 requires the claimed invention to be identically disclosed in

a single reference.

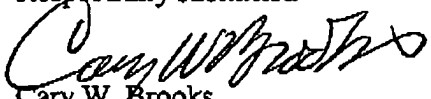
Claim 22 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bloomfield '962 as applied to claim 20 above, and further in view of Keller U.S. Patent No. 3,968,999. However, Keller '999 is directed to a method of making available fuels from artic environments. The reference has nothing to do whatsoever with respect to fuel cells or solving fuel cell problems. A person of ordinary skill in the art searching for solutions to fuel cell energy management problems would not be lead to Keller '999 to find a solution. Keller '999 is non-analogous art and therefore the rejection is improper and should be withdrawn. Notwithstanding, Keller '999 doesn't overcome the deficiencies of Bloomfield '962. The rejection doesn't state how Bloomfield '962 should be modified and what motivation there is in the prior art to make such a modification to arrive at Applicants' claimed invention. Bloomfield '962 simply doesn't disclose a Rankine cycle including an organic cooling fluid connected to a fuel cell stack. Keller '999 doesn't suggest that Bloomfield '962 could be modified, nor does it suggest how Bloomfield '962 should be modified. Neither the rejection nor Keller '99 identifies what motivation a person of ordinary skill would have for modifying Bloomfield. No prima facie case of obviousness has been established.

Applicants have attached a Petition for Extension of time, for a period of two months to file this response.

In view of the above remarks, Applicants respectively request reconsideration and

allowance of all the claims now in the case.

Respectfully submitted



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